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Prestressed Composite Bridges in Belgium

Ponts mixtes précontraints en Belgique

Vorgespannte Verbundbrücken in Belgien

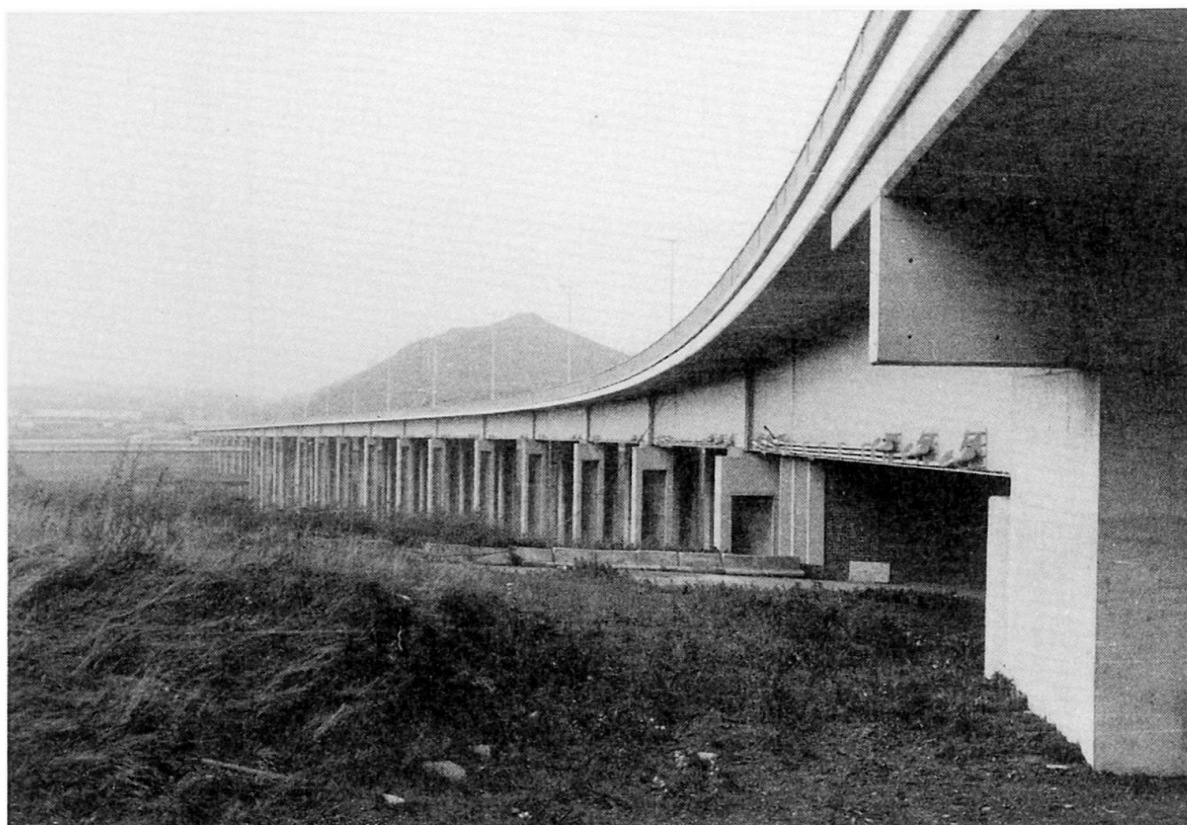
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SUMMARY

An important development in the field of bridge design seems to be a large combination of materials like concrete, light weight concrete, rolled steel, prestressing steel. This combination makes it possible to use, for each element of the structures, the adequate materials, working at the utmost of their possibilities : - concrete (compression strength, stiffness) - light concrete (compression strength, light weight) - rolled steel (tension strength) - prestressing steel (high tension strength). The purpose of the poster is to present two recent composite bridges, built in Belgium. The viaduct over the river Sambre at Châtelet (see fig. 1) is 1043 m long and has a prestressed composite, light concrete-steel structure. The new "Devallee" bridge over the river Scheldt at Tournai (see fig. 2) is a statically undetermined structure in prestressed concrete including prebended beams in the main span. The bridge has been designed for heavy convoys up to 360 t. The deck depth/main span ratio is 1/47.

Fig 1 VIADUCT OVER THE RIVER SAMBRE AT CHATELET



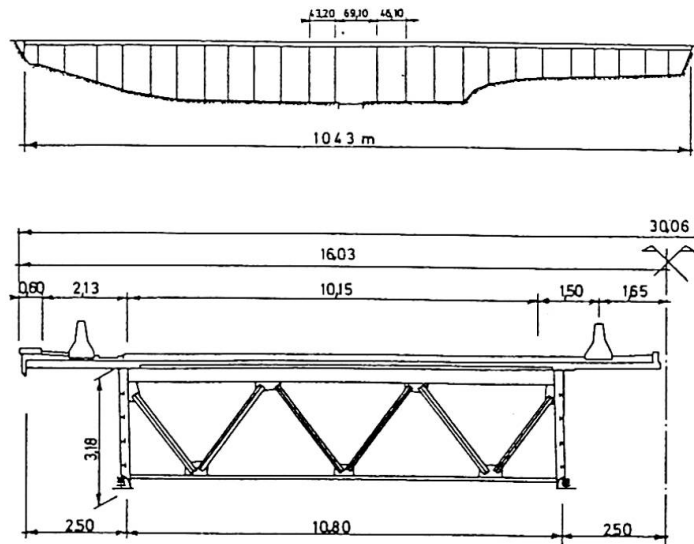


Fig 2 NEW "DEVALLEE" BRIDGE OVER THE RIVER SCHELDT AT TOURNAI

